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10/528,610	03/21/2005	Ronald J. Weeks	62760B	4031

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The Dow Chemical Company
Intellectual Property Section
P.O. Box 1967
Midland, MI 48641-1967

EXAMINER	
KRUER, KEVIN R	

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Please find below and/or attached an Office communication concerning this application or proceeding.

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/528,610
Filing Date: March 21, 2005
Appellant(s): WEEKS, RONALD J.

James T. Hoppe
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed October 02, 2008 appealing from the Office action mailed August 23, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,667,383	CHUM et al	10-1997
6,384,158	BAMBERGER et al	05-2002
JP10168245	TERADA	06-1998
JP 57128729	SEKISUI	08-1982

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

1. Claims 1, 3-9, 11, 13-20, 22, and 24-28 stand rejected under 35 U.S.C 103(a) as being unpatentable over Chum et al (US 5,677,383) in view of Bamberger et al (US 6,384,158).

Chum teaches a polymer blend that comprises from 5-95wt% of at least one first homogeneously branched ethylene interpolymer having at least one first comonomer, and 95-5wt% of at least on second heterogeneously branched ethylene interpolymer having at least one second comonomer (abstract). The composition has a density of 0.900-0.935g/cc and the melt range is from 0.1-100g/10min. Said composition can be fabricated into an article including multi-layered articles. The homogeneously branched interpolymer comprises a C3-C20 olefin and has a single melting point. Said interpolymer preferably comprises 35-85wt% of the composition and has a Mw/Mn of

1.8-2.8. It has a CDBI of greater than 50 (herein understood to anticipate 80-100 claimed in claim 28). The heterogeneously branched polyethylene comprises a copolymer of ethylene and a C3-C20 olefin and has a molecular weight distribution of greater than 3. Said component has at least 2 melting points, as determined using differential scanning calorimetry, between –30 and 150°C. Thus, the composition as a whole has at least 3 melting points (one from the homogeneously branched ethylene and at least 2 from the heterogeneously branched ethylene). The homogeneously branched polymer is linear (col 3, lines 3+) and the heterogeneously branched ethylene interpolymer is a LLDPE (col 7, lines 65+). Thus, both components are linear polyethylenes.

Chum does not teach the composition comprising linear polyethylenes may be blended with LDPE in order to improve its melt strength. However, Bamberger teaches that it is common practice to add low levels of LDPE to a linear polyethylene in order to increase its melt index (see Background of the Invention). Furthermore, Bamberger teaches LDPE is known in the art to have a melt strength 2-3 times greater than that of LLDPE (col 12, lines 6+). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to sufficient amounts of LDPE to the LLDPE composition taught in Chum. The motivation for doing so would have been to improve the melt strength of the composition.

(10) Response to Argument

Claim 1 is not made obvious in light of the art cited by Examiner

With respect to Chum, appellant argues the reference does not teach combining the mixture of component A with low density polyethylene having a melt index at least twice that of component A. The examiner agrees but notes Chum was never relied upon for such a teaching. Rather, the examiner relied upon the teachings of Bamberger for such a teaching. Specifically, Bamberger teaches it is well known in the art to add LDPE to linear polyethylenes in order to improve melt strength, shear sensitivity, and to reduce the tendency to melt fracture (col 1, lines 50+). Said properties are desirable in order to improve the processability of the linear polyethylenes (col 1, lines 38+). In fact, both references are utilizing blends to improve the melt strength and processability of components of linear ethylene compositions (see Chum; col 1, lines 20-31). In Chum, both components utilized are linear polyethylenes; the first component is described as a "linear" or "substantially linear" ethylene-alpha olefin interpolymer and the second component is LLDPE (col 7, lines 65+). Since (1) Chum teaches the desirability of high melt strengths and improved processability and (2) it is well known in the art to add LDPE to linear polyethylenes in order to overcome their processing deficiencies, the examiner maintains the position it would have been obvious to one of ordinary skill in the art to add LDPE to the composition taught in Chum.

Appellant argues the addition of LDPE to LLDPE is presented as a problem to be solved. The examiner respectfully disagrees; the reference teaches it was standard practice in the art at the time the invention was made to add LDPE to LLDPE. The

addition of LDPE to linear polyethylene compositions is explicitly taught to result in improved properties. Thus, Bamburger is not trying to solve a problem resulting from LDPE/linear polyethylene blends so much as he is trying to find a composition which mimics the blends benefits (col 1, lines 65+). Thus, the examiner respectfully disagrees with Appellant's conclusion that the addition of LDPE to linear polyethylene compositions is presented as a problem to be solved.

Appellant further argues Bamberger teaches the addition of LDPE in "low" levels and that said teaching would not be considered by the skilled artisan to read on the claimed range of 20-40percent. Said teaching is not persuasive. Initially, it is noted that Bamberger does not teach a specific amount of LDPE that should be added; thus, there is no teaching away from the claimed range in Bamberger. Furthermore, Bamberger teaches the amount of LDPE is a result effective variable that controls the melt strength, shear sensitivity, and melt fracture of linear polyethylene compositions. The courts have held, "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235(CCPA 1955). Furthermore, JP'729 and JP'245 have been made of record to demonstrate that melt strengths of linear ethylene compositions are typically modified by the addition of 5-50wt% LDPE. Since the art recognizes up to 50wt% LDPE may be added to linear polyethylene compositions in order to modify the composition's melt strength, the examiner maintains the position that the claimed composition comprising 20-40wt% LDPE is rendered obvious by Chum in view of Bamburger

Appellant further argues that higher melt strength is not a universally desired characteristic. The examiner agrees but notes that the skilled artisan would have desired said characteristic in the present situation. Specifically, linear polyethylenes are known to be deficient with regards to melt strength, shear sensitivity, and melt fracture. Said properties affect the ultimate processability of the linear polyethylenes. Thus, said properties are known to be desirable in linear polyethylene compositions.

Appellant further argues the addition of LDPE leads to a decrease in other properties. Said argument is acknowledged, but the skilled artisan would have been able to optimize the amount of LDPE added to the composition in order to optimize all the properties of the resulting blend. Specifically, the prior art teaches that the properties of the resulting blend can be optimized by varying the relative amount of each component utilized in the composition.

Claim 11 and 24

Appellant argues the rejections of theses claims are improper "for the same reasons as described above." Said argument is not persuasive for reasons of record.

Claims 7, 17, 25, 26, and 27 contain additional recitations which are not made obvious by the art cited by the examiner

Applicant argues the claims require the blend have a differential calorimetry curve having at least 3 peaks. The examiner takes the position the blend rendered obvious by the prior art will inherently have such a calorimetry curve. Specifically, the composition of Chum is taught to have at least 2 (and possibly three) peaks (see Figure 2). Furthermore, the addition of the LLDPE component will add a peak to the curve.

Alternatively, the examiner takes the position said limitation is inherent to the composition rendered obvious by the prior art because the compositions contain the same components in the same relative amounts.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Kevin R Kruer/

Primary Examiner, Art Unit 1794

Conferees:

Larry Tarazano-Supervisory Patent Examiner, Art Unit 1794

/D. Lawrence Tarazano/

Supervisory Patent Examiner, Art Unit 1794\

Rena Dye-Supervisory Patent Examiner, Art Unit 1794

/Rena L. Dye/

Supervisory Patent Examiner, Art Unit 1794